

Abstract

Disclosed is a modified glucose dehydrogenase having pyrroloquinoline quinone as a coenzyme, wherein one or more amino acid residues in a region of amino acid 349-377 of water-soluble PQQGDH derived from *Acinetobacter calcoaceticus* is replaced with other amino acid residues and has an inhibition constant ( $K_{si}$ ) of 200 mM or more. The modified water-soluble PQQGDH of the invention can be utilized for measuring glucose levels in the presence of high concentrations of glucose because of the low substrate inhibition by glucose.